

UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S)

GROUP ART 1753

UNIT:

APPLN. NO.:

EXAMINER

:

FILED:

TITLE: METHOD FOR FORMING A BARRIER LAYER FOR USE IN A
COPPER INTERCONNECT

Certificate of MailingDate of deposit: 2/22/02

I hereby certify that this paper is being deposited with the United States Postal Service on the date indicated above, as Express mail, with sufficient postage attached thereto, in an envelope addressed to the Commissioner for Patents, Washington, D.C.

Elaine Cox

Signature of Person Mailing Paper

Elaine Cox

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PRELIMINARY AMENDMENT

Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Prior to examination of the above-referenced application please enter the following amendment:

20220220 09:27:00

AMENDED CLAIMS WITHOUT SHOWING CHANGES MADE

45. The method of claim 33, wherein the layer is further characterized as a barrier layer.
46. The method of claim 45, wherein the barrier layer is further characterized as a tantalum-containing barrier layer
47. The method of claim 33, wherein the aluminum is arc sprayed onto the isolation ring.
48. A method for forming a layer on a wafer, the method comprising the steps of:
placing the wafer within a sputtering chamber, wherein the chamber includes an isolation ring that is coated with a conductive material; and
depositing material from a sputtering target onto the wafer.
49. The method of claim 48, wherein the conductive material is aluminum.
50. The method of claim 49, wherein the aluminum is flame sprayed onto the isolation ring.
51. The method of claim 49, wherein the aluminum is arc sprayed onto the isolation ring.
52. The method of claim 48, wherein the isolation ring includes a ceramic material.
53. The method of claim 48, wherein the isolation ring includes a dielectric material.

Remarks

Claims 45-53 have been added and claims 1-32 and 38-44 have been cancelled without prejudice. Applicants believe the present Application is currently in condition of allowance. Applicants earnestly solicit allowance of the pending claims. Contact me if there are any issues regarding this amendment or the current Application.

Please forward all correspondence to:
Motorola, Inc.
Customer Number **23125**

Respectfully Submitted



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AMENDED CLAIMS SHOWING CHANGES MADE:

Please cancel claims 1-32 and 38-44 without prejudice.

45. (Added) The method of claim 33, wherein the layer is further characterized as a barrier layer.
46. (Added) The method of claim 45, wherein the barrier layer is further characterized as a tantalum-containing barrier layer
47. (Added) The method of claim 33, wherein the aluminum is arc sprayed onto the isolation ring.
48. (Added) A method for forming a layer on a wafer, the method comprising the steps of:
placing the wafer within a sputtering chamber, wherein the chamber includes an isolation ring that is coated with a conductive material; and
depositing material from a sputtering target onto the wafer.
49. (Added) The method of claim 48, wherein the conductive material is aluminum.
50. (Added) The method of claim 49, wherein the aluminum is flame sprayed onto the isolation ring.
51. (Added) The method of claim 49, wherein the aluminum is arc sprayed onto the isolation ring.
52. (Added) The method of claim 48, wherein the isolation ring includes a ceramic material.
53. (Added) The method of claim 48, wherein the isolation ring includes a dielectric material.